

Local policymakers' responsiveness to inhabitants' climate change concern: The case of adaptation in Italian municipalities

MOTIVATION

- Evidence in the **literature** suggest that higher public concern about environmental issues leads to more environmental policies and environmental stringency (Dasgupta & De Cian, 2018).
- However, Climate Change (CC) impacts are localized → we **downscale** the analysis to the **municipality level**.
- At local level emissions externalities are hardly internalized → we use **investments for adaptation** to CC as a measure of stringency.

DATA

- Unbalanced **panel** from **2015 – 2021** at the municipality level (**2280** out of 7896 **municipalities** analyzed) → 3855 total observations.
- CC concern**: Average of **standardized** individual CC concern **measure** computed with the ISTAT ADL **survey***; 50 thousand **individual observations**.
- Adaptation investments**: From **annual budgets'** statements published on Open BDAP we take the **share of the investments** spent in adaptation **sectors**.
- Climate** and **Socio-demographic** controls: From Copernicus we estimate the **number of extreme events** in a year in each municipality by **type of hazard**. Investments of **other administration levels** (central gov; regions; provinces). Size and composition of the **population**; dummy for **electoral campaign**.

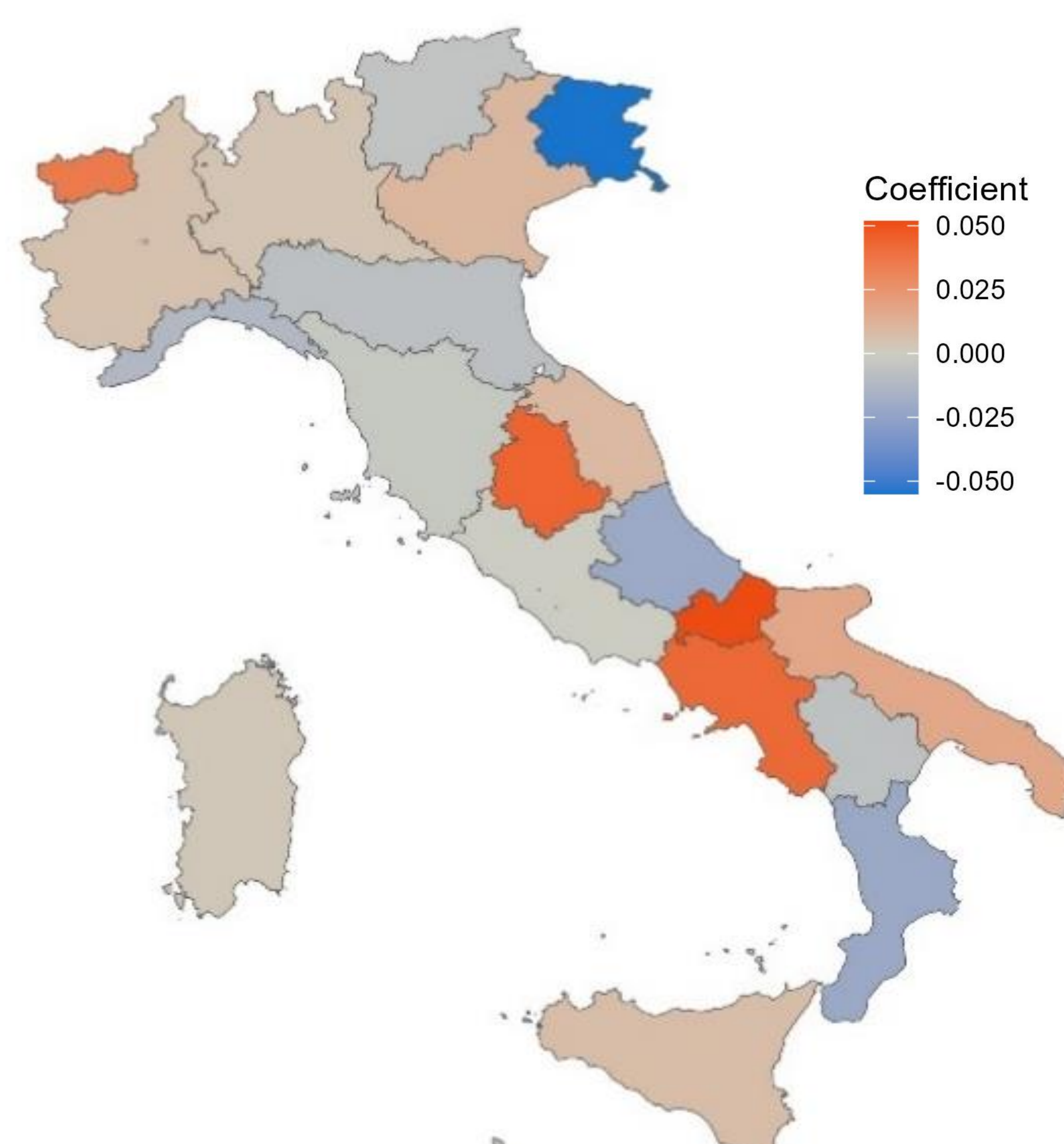
METHODOLOGY

- Linear regression model with **province-year fixed** effects and **cluster-robust standard errors**.
- Heterogeneity** analysis is conducted by interacting **CC concern** with dummies for municipalities' characteristics.

RESULTS

- An increase in concern by one standard deviation **increases** investments for adaptation by 0.011%.
- Responsiveness is **8 times** stronger during **electoral campaigns**.
- Responsiveness is stronger in **urban areas**, depends on the frequency and type of **climate hazards**, and is heterogeneous across **regions**.

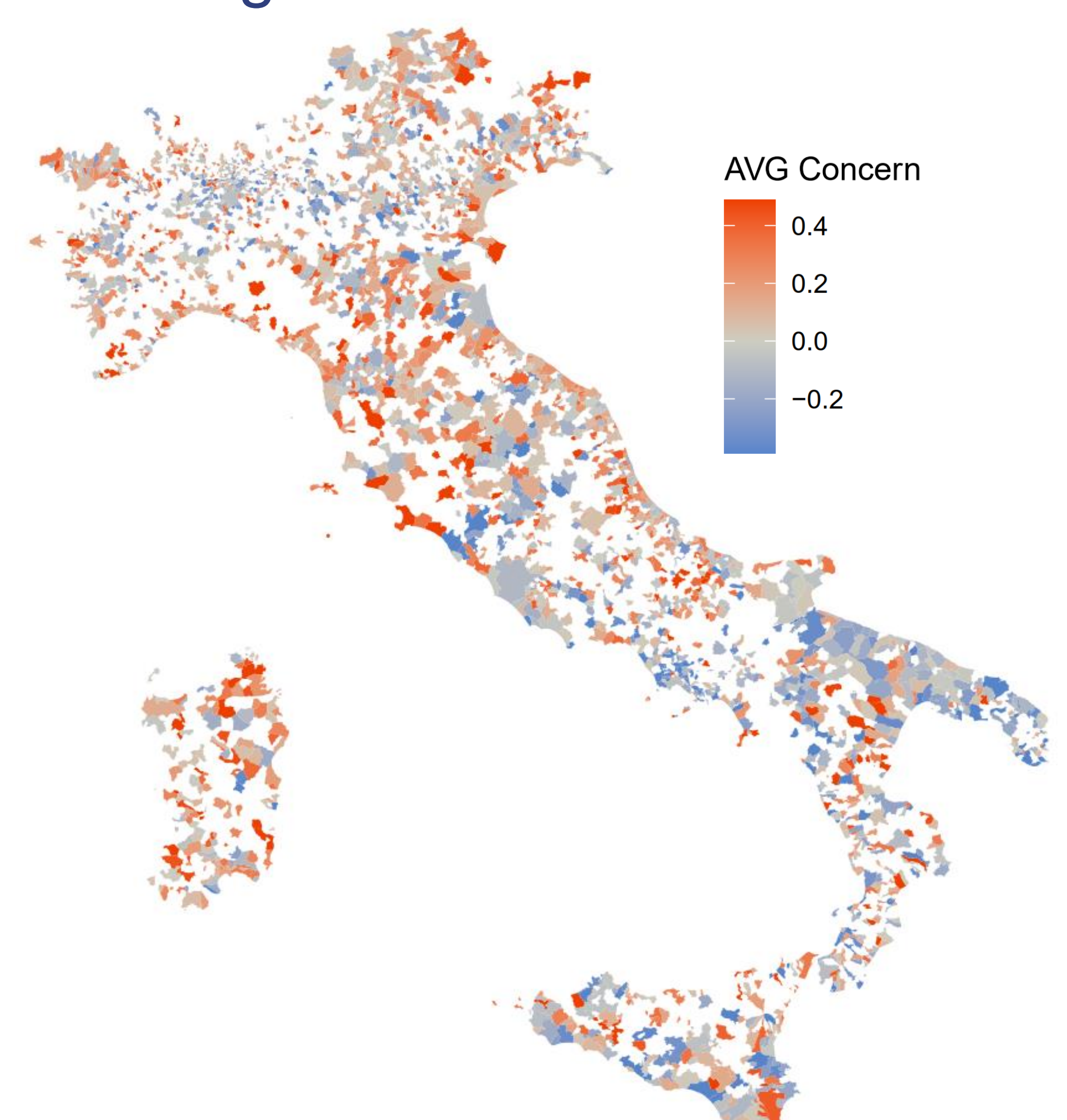
Responsiveness by Region



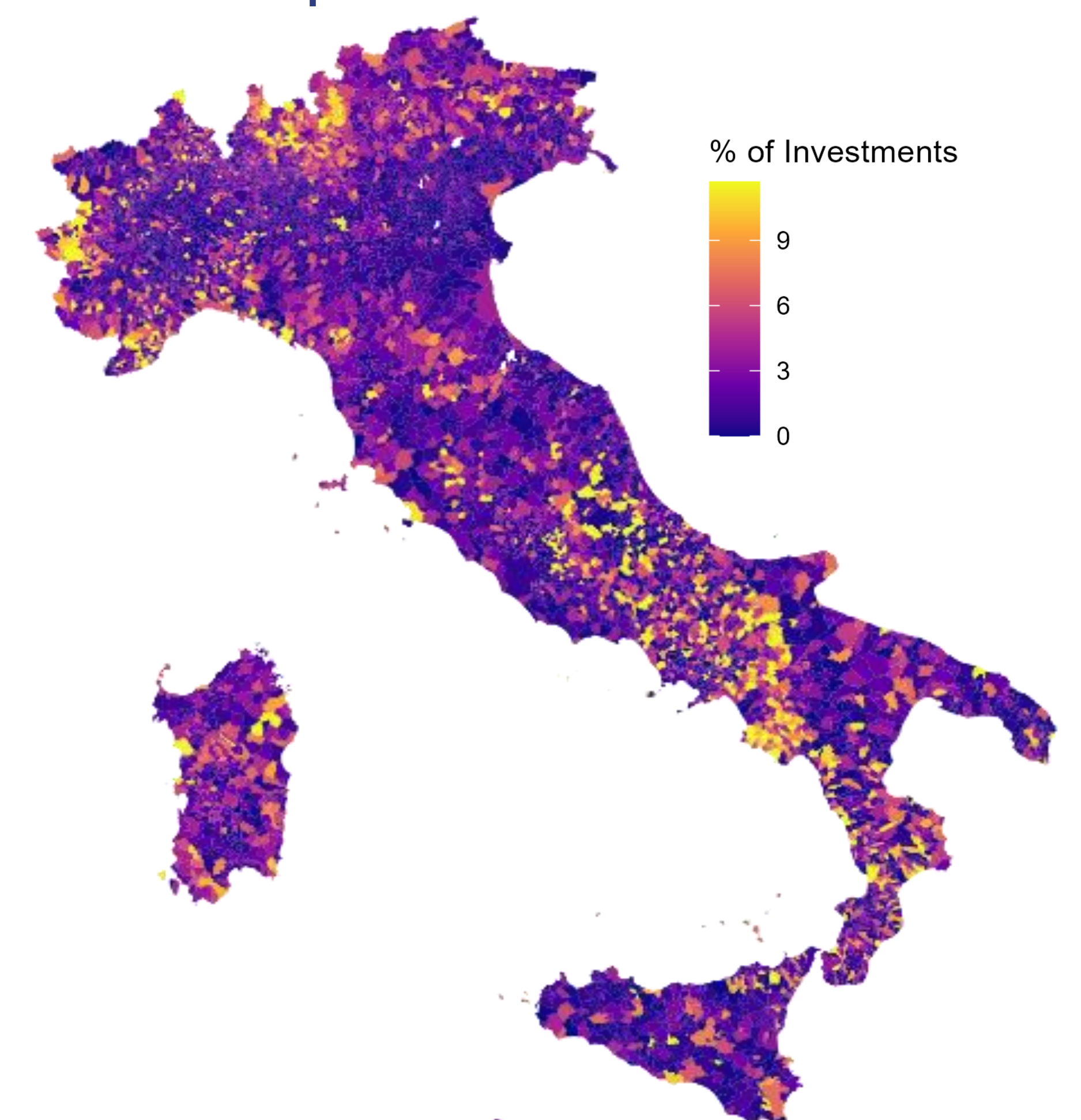
RESEARCH QUESTIONS

- Do local policymakers **respond** to the inhabitants' **CC concern** by increasing **adaptation investments**?
- Is responsiveness determined by **political cycles** and other municipalities' characteristics?

Average Standardized Concern



Adaptation Investments



LITERATURE

- Dasgupta, S. & De Cian, E., 2018. "The influence of institutions, governance, and public opinion on the environment: Synthesized findings from applied econometrics studies". *Energy Research & Social Science*.
- Tjernström, E. & Tietenberg, T., 2006. "Do differences in attitudes explain differences in national climate change policies?". *Ecological Economics*.
- Alesina, A. & Paradisi, M., 2017. "Political budget cycles: Evidence from Italian cities". *Economics & Politics*.

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The results and opinions expressed are the sole responsibility of the authors.

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